

Work Order ID 131195

Monday, March 30, 2015 9:13:11 AM

131195

Page 1

Item ID: D6102-013 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Saddle Billet
Start Date: 3/30/2015 Start Qty: 12.00 ***12*** Cust Item ID:
Required Date: 3/30/2015 Req'd Qty: 12.00 ***12*** Customer:
Reference:

Approvals: Process Plan: MCS Date: 15-03-30 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D6102	Rev D

100 PURCHASING 0.00
100
Purchasing Memo 0.00
Purchasing Issue P/O: 28037 a) Description: Aluminum Billetb) 7.000" x 6.500" x 2.000" (thick) Tolerance on all dimensions is +0.06/0.00d) Grain direction along 6.500" lengthe) Material: 6061-T6/T6511 (QQ-A-250/11 or QQ-A-200/8)Material release certifi
CL 15/04/06 12

110 Receive & Inspect for Damage & Mat'l Certs 0.00
110
Packaging Memo 0.00
Packaging Ensure material certification is attached
12 x 8015-04-23

120 QC6- Inspect dimensions to drawing 0.00
120
QC Memo 0.00
Quality Control Check certification to Dwg D6102 for compliance
12 x
DAS 14 9-89
15/04/27

Picklist Print

Monday, March 30, 2015 9:13:14 AM

Page 1

Work Order ID: 131195

131195

Parent Item: D6102-013

D6102-013

Parent Item Name: Saddle Billet

Start Date: 3/30/2015

Required Date: 3/30/2015

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP Rev:A New Issue 06-07-03 JLM

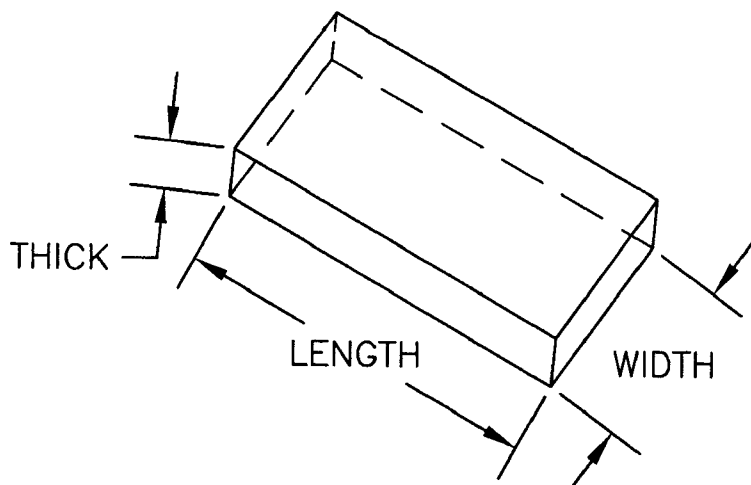
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6102-013P *D6102-013P* 6061-T6 7.0X6.5X2.0		Purchased	No			110	Each	0.0000	1	12			

****** 12 x Sp15-04-23.



DESIGN #	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CP	APPROVED #	DRAWING NO. D6102	Rev. D SHEET 1 OF 1
DATE 06.06.30		TITLE SADDLE BILLET, 6061	SCALE NTS
A	01.03.30	NEW ISSUE	
B	03.10.20	ADD D6102-005/-007/-009	
C	04.08.25	ADD D6102-010/-011	
D	06.06.30	ADD D6102-013	

SPECIFICATION CONTROL DRAWING



RELEASED

06.08.15 #

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.06/-0.00), AND GRAIN DIRECTION AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.06/-0.00.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6102-001	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.880	6.250	2.000	Along 7.880 Length
D6102-003	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.000	6.250	2.000	Along 6.000 Length
D6102-005	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	47.85	15.250	1.000	Along 47.85 Length
D6102-007	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.500	7.000	2.500	Along 7.500 Length
D6102-009	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	11.000	6.000	5.000	Along 11.000 Length
D6102-010	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.950	8.250	2.500	Along 7.950 Length
D6102-011	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	8.250	2.500	Along 6.500 Length
D6102-013	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	7.000	2.000	Along 6.500 Length

Copyright © 2001 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO28037

Purchase Order Date 4/7/2015

PO Print Date 4/7/2015

Page Number 2 of 3

Order From :

VU-MET002

Ship To : DART AEROSPACE LTD

METAUX CASTLE
P.O. BOX 4090 STN A
TORONTO, ONTARIO M5W OE9
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

USD

Destination-Collect

Ship To Contact

Ship To Phone

Ship Via:

VENDOR'S TRUCK

Ship Acct:

Line Total: \$425.00

3 D6101-007P

7075-T7351
8.25X7.75X2.5

4/21/2015

18.00

\$61.10

\$1,099.80

Yes

4/21/2015

Each

AS PER DWG D6101 REV. B

B131095

MATERIAL: 7075-T7351 (QQ-A-250/12)

SIZE: 7.750" X 8.250" X 2.50" THICK

GRAIN DIRECTION ALONG: 7.750" LENGTH

TOLERANCE AS PER QUOTE +.030"/-.000"

Sp504-14

Line Total: \$1,099.80

4 D6102-013P

6061-T6 7.0X6.5X2.0

4/21/2015

12.00

\$29.50

\$354.00

Yes

4/21/2015

Each

AS PER DWG D6102 REV. D

B131195

SIZE: 7.000" X 6.500" X 2.00" THICK

GRAIN DIRECTION ALONG 6.500"

MATERIAL 6061-T6/T6511 QQ-A-250/11

TOLERANCE AS PER QUOTE +.030"/-.000"

Sp504-23

Line Total: \$354.00

Note:

4/7/2015

**Castle Metals®**

A. M. Castle & Co.

**PACKING SLIP/
CERTIFICATE OF CONFORMANCE**

Page 1 of 2

Shipment No:2579981

Ship From: A. M. Castle & Co. MONTREAL - CASTLE METALS 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms		Carrier		BOL No	
22-APR-2015	ORIGIN	Prepaid		MANITOULIN		2579981-2	

Shipment Details	Final Destination Branch - MON
-------------------------	---------------------------------------

Order No	Line No	Item No	Description				
3813378	2	8641.MO	2.0000.PL.6061.T651.ALUMINUM.48.5000.144.5000 CUT 2SIDED TO 7 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 6.5")) X 6.5 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 6.5")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/11				
Purchase Order No		Part Number		Ordered Qty		Invoice Qty	
28037		YOUR ITEM NUMBER: D6102-013		12.00 PCS		12.00 PCS	
Details		USE ONE HEAT ONLY SHIP TO CASTLE, MONTREAL (POINTE-CLAIRE) CUSTOMS BROKER: GEORGE H. YOUNG END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No.	Mill	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
120020529	AMAG ROLLING GMBH			12			109.3709

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.

Date Printed: 22-APR-2015 10:16:34 AM



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

Reviewed by Authorized Castle Metals Representative:		Date:	Name:
--	--	-------	-------



22 AVR. 2015

Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate - mill certificate

Nr.: 85214483 01 / 1

Rev.: 0

Seite / page: 1 von / of 2

Datum / date: 2014 03 03

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, ENAS 9100, ISO 14001, NADCAP

Auftraggeber / customer: Castle, A M & Co (Inc) + Castle Metals 3400 N Wolf Rd FRANKLIN PARK IL 60131 USA Wareneempfänger / consignee: A M Castle & Co. 3050 S. Hydraulic WICHITA KS 67216 USA	Bestell Nr. / order no.: 268492 Datum / date: 2014 02 04
	Auftragsbest. Nr. / order confirm no.: 670688 Datum / date: 2014 02 05
	Lieferschein Nr. / delivery note: 85214483 Datum / date: 2014 03 31
	DAS 15/04/27 14 9-89

Produkt / product Form / form: Plate, stretched Werkstoff / material: 6061 Zustand / temper: T851 Dim. / dim.: [inch] 2,000x48,50x144,50 Kundenartikel Nr. / cust. article no.: 8641	Bedingungen / terms Technische Lieferbedingungen / techn. spec.: AMS QQ-A-250/11, 08.1997 ASTM B 209 - 10 AMS 4027N, 07.2008 AMC A96061-181, Rev. 02, 11-AUG-11 ASME SB-209, 2011a Sondervorschrift / special terms:
--	--

AB-Pos. ord. item.	BNr/Los/Teillos Lot/No./Part	Guss Nr. cast no.	Werkstoff material	Kollo packno.	Gewicht netto weight net	Stk. pcs.
01	17204/01/00	01/0059584/3	6061	6706880001	4193,122 lbs	3

Chemische Zusammensetzung ([%] Gewichtsanteile) / Chemical composition ([%] weight proportion (OES))											
Guss Nr. / cast no.	material	Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each
01/0059584/3	spec. min.	-	0,40	-	0,15	-	0,80	0,04	-	-	-
	spec. max.	100	0,80	0,70	0,40	0,15	1,20	0,35	0,25	0,15	0,05
	actual	97	0,65	0,45	0,22	0,12	0,90	0,17	0,07	0,07	0,02
	Others Total										
	spec. min.	-									
	spec. max.	0,15									
	actual	0,03									

Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate - mill certificate

Nr.: 85214483

01 / 1

Rev.: 0

Seite / page:

2 von / of 2

Datum / date:

2014 03 03

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Zugprüfung LT / tensile test LT

BNr/Los Lot/No.	Zustand temper	Richtung direction	Tests		UTS (ksi)	YS (ksi)	A2" [%]			
				spec.min.	42,0	35,0	8			
				spec.max.	-	-	-			
17204/01	T651	LT	5	from	48,0	42,4	10			
17204/01	T651	LT		to	47,3	43,4	13			

Sonstige Prüfungen / other tests

Maßkontrolle: OK. / Dimensional Check: OK.

Oberfläche: OK. / Surface inspection: OK.

Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellung entspricht.
We hereby certify that the material described above has been tested and complies with the terms of the order contract.

Werkstoffverständiger / factory specialist

E-Mail / e-mail

Josef Klampfer

josef.klampfer@amag.at

Herstellerland: Österreich / goods origin: The goods are of Austrian origin.

Maschinell erstellt - Gültig ohne Unterschrift / Automated - valid without being signed.

DAS
14
9-89

15/04/27

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D6102-013
 DATE: 15/04/27

PO / BATCH NO.: 28037/B131195

MATERIAL CERT REC'D: Y
 QUANTITY RECEIVED: 12
 QUANTITY INSPECTED: 12
 QUANTITY REJECTED: _____

THICKNESS ORDERED: 7.00X6.50X2.00
 THICKNESS RECEIVED: 7.00X6.50X2.00
 SHEET SIZE ORDERED: _____
 SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	☒ Y	☒ N	
CORRECT FINISH	☒ Y	☐ N	
CORROSION	☐ Y	☒ N	
CORRECT GRAIN DIRECTION	☒ Y	☐ N	
CORRECT MATERIAL	☒ Y	☐ N	
CORRECT THICKNESS	☒ Y	☐ N	
PHOTO REQUIRED	☐ Y	☒ N	
CORRECT MATERIAL	☒ Y	☐ N	
CORRECT REF # TO LINK CERT	☒ Y	☐ N	
CORRECT MATERIAL IDENTIFICATION	☒ Y	☐ N	
CORRECT M# ON THE MATERIAL	☒ Y	☐ N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	☐ Y	☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	☐ Y	☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u> <u>14</u> DATE: <u>15/04/27</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

INSTRUCTIONS FOR INSPECTING BAR, TUBING, ROUND, & SHEET STOCK

- 1- VERIFY STOCK TO DART PURCHASE ORDER
- 2- MEASURE ALL DIMENSIONS FOR EACH PURCHASED STOCK
 - a. WIDTH, THICKNESS, DIAMETER, WALL THICKNESS & LENGTH
- 3- VERIFY CONDITION OF MATERIAL i.e. DAMAGED, CORRODED, etc.
- 4- VERIFY THAT SUPPLIER HAS A NUMBER (HEAT #) ON ITS RECEIVING REPORT TO LINK TO MATERIAL CERTS
- 5- VERIFY MATERIAL CERTS ARE CORRECT TO THE DART PO INSTRUCTIONS
- 6- REMOVE / CUT A PIECE OF MATERIAL FOR SAMPLE HARDNESS TESTING

INSTRUCTIONS FOR INSPECTING SKIDTUBE & STEP EXTRUSION

- 1- VERIFY TO DART SUPPLIED DRAWING
- 2- SAMPLE INSPECT MATERIAL IN BUNDLE TO ENSURE MATERIAL CAN BE RECEIVED INTO DART
- 3- USING PORTABLE HARDNESS TESTER VERIFY HARDNESS OF THE MATERIAL TO THE DRAWING
- 4- VERIFY THAT MATERIAL CERTS MATCH TO WHATS CALLED UP ON THE DART DRAWING

AFTER MATERIAL PASSES INSPECTION

- 5- HAVE DART EMPLOYEES START STOCKING MATERIAL BUT REQUEST MIN **20pcs** FOR FULL INSPECTION
- 6- INSPECT ALL DIMS AS PER DRAWING REQUIREMENTS

INSTRUCTIONS FOR INSPECTING CROSS TUBE MATERIAL

- 1- VERIFY MATERIAL CERTS MATCH THE REQUIREMENTS ON THE DART DRAWINGS
- 2- INSPECT MIN. HALF THE BATCH OF EXTRUSION RECEIVED INTO DART
- 3- INSPECT MATERIAL AS PER THE EXTRUSION REPORT
 - a. WALL THICKNESS USING ULTRA-SONIC IN 4 LOCATIONS
 - b. OUTSIDE DIAMETER HIGHEST/LOWEST BOTH ENDS
 - c. INSIDE DIAMETER HIGHEST/LOWEST BOTH ENDS
 - d. STRAIGHTNESS @ CENTER OVER 12" SPAN
 - e. WALL THICKNESS USING TUBE MICROMETER HIGHEST/LOWEST BOTH ENDS
- 4- IDENTIFY EACH TUBE IN SEQUENCE OF INSPECTING (TUBE 1, TUBE2.....) AND W/O# AND PO#
- 5- RECORD ALL FINDINGS ON EXTRUSION REPORT

IF ANY QUESTIONS PLEASE SEE QC COORDINATOR BEFORE GOING FURTHER